
		<b>Work Instruction</b>			
Title:  <b>Grip Cement Handling Procedure</b>			Document Owning Organization  <b>Environmental Test Function</b>		Effective Date: <b>02/15/05</b>
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Approvals				
Title	Org	Name	Signature	Date
Process Owner	NASA	Carmine Mattiello	Signature on File	2-17-05
Originator	MIC	Michelle Gibson	Signature on File	2-09-05
Supervisor	MIC	Mark Ramsey	Signature on File	2-09-05
Function Manager	MIC	Nabil Copt	Signature on File	2-18-05
Quality Assurance	MIC	William Chambers	Signature on File	2-18-05

Reference Documents	
Document Number	Document Title

### 1. Purpose

The purpose of this document is to detail the proper procedures to follow while using Grip Cement / Dental Cement.

### 2. Scope

Certain precautions must be taken during the handling of Grip Cement to prevent any negative impact on personnel or the environment where they are used. This document shall detail the specific procedures and steps to be taken during the storage, handling, and disposal of Grip Cement. Before use, the Dental Cement is prepared by mixing a Grip Cement Liquid and a Grip Cement Powder per the manufactures directions.

### 3. Definitions and Acronyms

Shall	This statement is a requirement.
Should	This statement is a good practice.
May/Can	This is a statement of permission.
Will	This is a statement of expectation.
Is	This statement is of descriptive material.
GSFC	Goddard Space Flight Center

### 4. Flowchart



N/A

### 5. Authorities and Responsibilities

N/A

### 6. Training

N/A

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## 7. Safety Precautions and Warnings

### 7.1 HAZARDS

The Dental Cement is a mixture of Grip Cement Powder and Grip Cement liquid. The manufactures directions for mixing are with the MSDS sheets and shall be followed.

#### 7.1.1 Grip Cement Liquid

- The Grip Cement Liquid is a water white liquid with an acrylic odor. It is a flammable liquid containing polymethyl methacrylate. It must be used in a well ventilated area and kept away from any conditions that may cause ignition. The Grip Cement Liquid may exert its effects through inhalation, contact with the skin, and ingestion. Vapors may induce headache, nausea, eye and respiratory tract irritation.

#### 7.1.2 Grip Cement Powder

- The Grip Cement Powder is a white powder with a characteristic odor containing polymethyl methacrylate.
- The Grip Cement Powder is considered a nuisance dust and must be used in a well ventilated area. Avoid contact with eyes and inhalation of dust.



#### 7.1.3 Grip Cement Mixture

- The Grip Cement Mixture is a deep lavender colored liquid when first mixed and changes to an ivory colored solid. When in liquid form the mixture is considered flammable and should be kept away from heat, sparks, and open flames.
- The Grip Cement Mixture is to be used in a well ventilated area. Prolonged or repeated contact with the skin may cause irritation.

### 7.2 PROTECTIVE EQUIPMENT

In order to protect operations personnel from the potential harmful effects of grip cement, specific protective equipment has been designated for use by the manufacture. The best protection from any chemical is education. Prior to use, each individual should familiarize him/herself with the proper procedures for using that chemical and any potential hazards. This may be accomplished by reviewing this document and the MSDS.

- Always wear eye protection when working with grip cement liquid, grip cement powder, and the grip cement mixture. Chemical splash goggles are preferred with safety glasses with eye shields as a substitute. If approved goggles are not available, a full face shield should be worn.
- To prevent skin irritation, personnel should wear impervious gloves while handling the grip cement liquid, powder, or mixture.
- Personnel should be aware of the nearest eye wash station for an emergency use.

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## 8. Tools, Equipment, and Materials

N/A

## 9. Procedure

### 9.1 STORAGE

Only approved solvents shall be stored in the Vibration lab. These solvents must be accompanied by an MSDS. The approved chemicals must be reviewed by the ManTech contamination Control Engineer for hazards, protective equipment required, and storage/handling parameters.

### 9.2 HANDLING



- The handling and dispensing of chemicals must be carried out with care at all times.
- Do not run or walk fast during the transport of chemicals. Proceed with caution.
- Do not leave empty bottles lying around. Dispose of immediately in the proper container.

### 9.3 DISPOSAL

- 9.3.1 Grip Cement Powder – Dispose material as solid waste in a closed container.
- 9.3.2 For hazardous waste pick up call 6-9233 or 62283.
- 9.3.3 Grip Cement Liquid - Solvent waste will be collected in a labeled safety can and transported to Building 87 and placed in the appropriate hazardous waste drum.
- 9.3.4 Grip Cement Mixture - Dispose material as solid waste in a closed container.

### 9.4 SPILLS

- 9.4.1 Grip Cement Liquid
  - 9.4.1.1 Notify ManTech Safety when any spill occurs.
  - 9.4.1.2 Immediately clean up any spills.
  - 9.4.1.3 For small quantities, absorb with wipes and allow the solvent to evaporate prior to discarding in plastic bags and then disposing outside the building. Any clothing that has become saturated should be removed and not reworn until the solvent has been removed. Discard or wash clothing before re-use.
  - 9.4.1.4 Exposed skin surfaces that become contaminated with solvent should be promptly washed with soap and water. Wash vigorously until no evidence of the solvent remains.
  - 9.4.1.5 If eyes are exposed to solvent flush with water for at least 15 minutes, call 911 for immediate help.
  - 9.4.1.6 Seek medical attention if there is any doubt as to the extent of the incident

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#### 9.4.2 Grip Cement Powder

9.4.2.1 Notify ManTech Safety

9.4.2.2 Call 911 if there is a potential to be exposed to this chemical.

9.4.2.3 Immediately clean up any spills.

9.4.2.4 Wet down with sufficient water to eliminate dust. Carefully sweep up and place in plastic bags. Avoid creating a dusty atmosphere. Properly dispose of chemical.

9.4.2.5 If inhalation occurs move to fresh air and call 911.

9.4.2.6 Exposed skin surfaces that become contaminated with powder should be promptly washed with soap and water.

9.4.2.7 If eyes are exposed to powder, flush with water for at least 15 minutes. call 911 for immediate help.

9.4.2.8 If powder is ingested call 911 for immediate help.

9.4.2.9 Seek medical attention if there is any doubt as to the extent of the incident

## 10. Metrics

N/A

## 11. Quality Records

Name	Type P/E	Contact	Location	Index	Archive Rqmnt
Storage Audit Record	P	Storage Custodian	Storage site	Material	Minimum 3 years

Revision History			
Rev	Description of Change	Author	Effective Date
0	Initial Release	Michelle Gibson	2-15-05